

K110454

MAY 13 2011

**510(K) SUMMARY**

**A. Submitter Information**

DePuy Spine, Inc.  
325 Paramount Drive  
Raynham, MA 02767

*Contact Person:* Kevin G. Stevens  
Regulatory Affairs Project Manager  
*Voice:* (508) 977-6445  
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*E-Mail:* ksteven1@its.jnj.com

**B. Date Prepared** April 15, 2011

**C. Device Name**

*Trade/Proprietary Name:* Cougar® LS Lateral Cage System  
*Common/Usual Name:* Spinal Intervertebral Body Fixation Orthosis, Spinal Intervertebral Fusion  
*Classification Name:* Spinal intervertebral body fixation orthosis  
per 21 CFR §888.3060  
Intervertebral Body Fusion Device  
per 21 CFR §888.3080

**D. Predicate Device Name**

Trade name: DePuy Spine Cougar® LS Lateral Cage System (K081917, K090899)  
Globus Medical Patriot Spacers (K072970)  
NuVasive CoRoent System (K071795)  
DePuy Spine Concorde® Curve (K101923)

sheet 1 of 3

**E. Device Description**

The COUGAR® LS Lateral Cage System consists of the PEEK/carbon fiber composite cages (CFRP). Cages are available in parallel or lordotic configurations and are available in various sizes to match patient anatomy. The proposed devices in this submission include cages with smaller height dimensions (6-10 mm) to meet customer demand.

The cage structure is radiolucent with tantalum x-ray wire so that healing can be assessed by normal radiographic methods. The cages have teeth that resist rotation and migration and have cavities to accept packing of autogenous bone graft.

The implants may be utilized in either an open or minimally invasive surgical approach. The implants are placed using a lateral surgical approach. The implants are manufactured from PEEK Optima material.

**F. Intended Use**

The Cougar® LS Lateral Cage System is indicated for use in the thoracolumbar spine (i.e., T1 to L5) to replace a diseased vertebral body resected or excised for the treatment of tumors, to achieve anterior decompression of the spinal cord and neural tissues, and to restore the height of a collapsed vertebral body. This system is also indicated for treating fractures of the thoracic and lumbar spine. The system is designed to restore the biomechanical integrity of the anterior, middle and posterior spinal column even in the absence of fusion for a prolonged period. When used as a vertebral body replacement device, this system is intended for use with DePuy Spine supplemental internal fixation.

The Cougar® LS Lateral Cage System is also indicated for intervertebral body fusion with autogenous bone graft in patients with degenerative disc disease (DDD) at one or two contiguous levels from L2 to S1. These DDD patients may also have up to Grade 1 spondylolisthesis or retrolisthesis at the involved levels. DDD is defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies. These patients should be skeletally mature and have had six months of non-operative treatment. These implants may be implanted via an open or a minimally invasive lateral approach. When used as an interbody fusion device, this system is intended for use with DePuy Spine supplemental internal fixation.

**G. Summary of Similarities and Differences in Technological Characteristics, Performance and Intended Use**

The proposed modifications to the DePuy Cougar® LS Lateral Cage Implants are the same as the predicate devices with one minor difference. The subject devices are offered in shorter heights than the predicate devices. The design has been modified slightly to provide the same strength and performance as the predicate devices. The materials, and technology remain identical to the predicate system.

**H. Materials**

The proposed cages are manufactured from carbon-fiber reinforced PEEK material.

**I. Performance Data**

Performance data per ASTM F2077 were submitted to characterize the subject Cougar® LS Lateral Cage Implants addressed in this notification. This testing was comprised of static and dynamic compression testing on the proposed device.

**J. Conclusion**

Both the Performance Testing and Substantial Equivalence Justification demonstrate that the device is as safe, as effective, and performs as well as the predicate device.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Room - WO66-G609  
Silver Spring, MD 20993-0002

DePuy Spine, Inc.  
% Mr. Kevin G. Stevens  
Regulatory Affairs Project Manager  
325 Paramount Drive  
Raynham, Massachusetts 02767

MAY 13 2011

Re: K110454  
Trade/Device Name: Cougar<sup>®</sup> LS Lateral Cage System  
Regulation Number: 21 CFR 888.3080  
Regulation Name: Intervertebral body fusion device  
Regulatory Class: Class II  
Product Code: MAX, MQP  
Dated: April 15, 2011  
Received: April 18, 2011

Dear Mr. Stevens:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you; however, that device labeling must be truthful and not misleading.

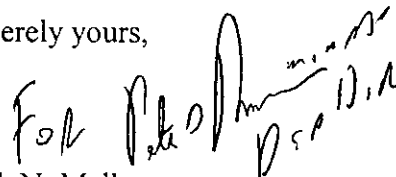
If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Mark N. Melkerson', with a stylized flourish at the end.

Mark N. Melkerson  
Director  
Division of Surgical, Orthopedic  
And Restorative Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## INDICATIONS FOR USE STATEMENT

510(k) Number (if known): K110454

Device Name: Cougar® LS Lateral Cage Implants

### Indications For Use:

The Cougar® LS Lateral Cage System is indicated for use in the thoracolumbar spine (i.e., T1 to L5) to replace a diseased vertebral body resected or excised for the treatment of tumors, to achieve anterior decompression of the spinal cord and neural tissues, and to restore the height of a collapsed vertebral body. This system is also indicated for treating fractures of the thoracic and lumbar spine. The system is designed to restore the biomechanical integrity of the anterior, middle and posterior spinal column even in the absence of fusion for a prolonged period. When used as a vertebral body replacement device, this system is intended for use with DePuy Spine supplemental internal fixation.

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Prescription Use   X  

AND/OR


Over-The-Counter Use       

(Part 21 CFR 801 Subpart D)

(21 CFR 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

  
(Division Sign-Off)

Division of Surgical, Orthopedic,  
and Restorative Devices

510(k) Number K110454